

Tat responsive element

Rev responsive element

SA/SD prevents protein expression from basal promoter activity

Packaging signal

Primer binding site

Different 5' and 3' LTR with a unique restriction site at the 5' LTR

IRES sequence for translation of two proteins from a dicistronic mRNA

Two protective genes are active at different stages of viral replication

Episomal replication

SV40pA to block activity from the 3' LTR

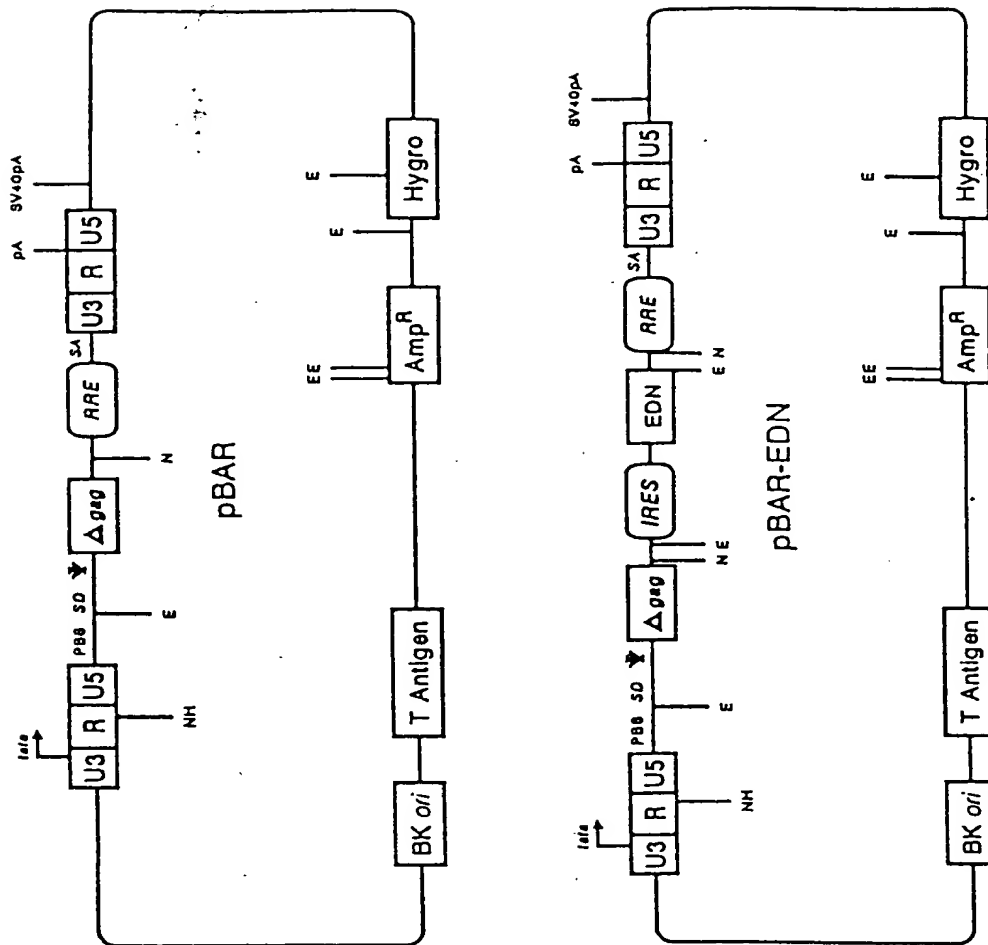
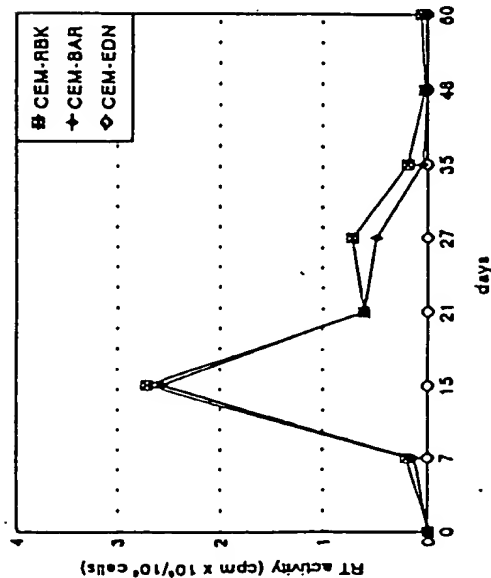
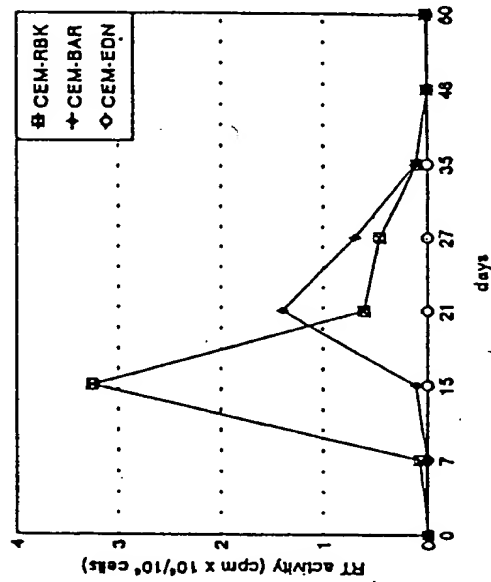


Figure 1

HIV-1_{IIIB} MOI 2



HIV-1_{IIIB} MOI 0.2



HIV-1_{IIIB} MOI 0.02

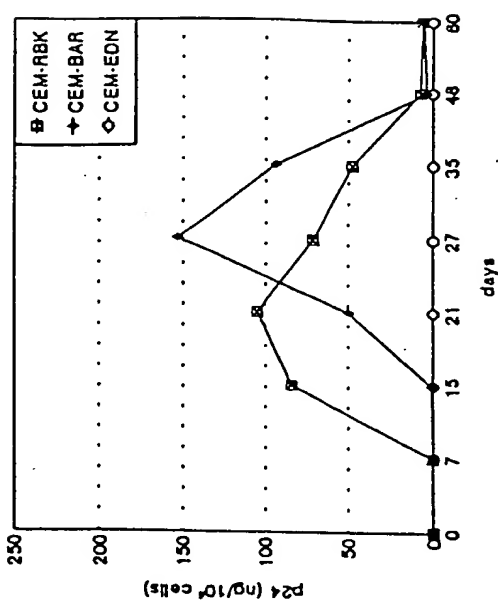
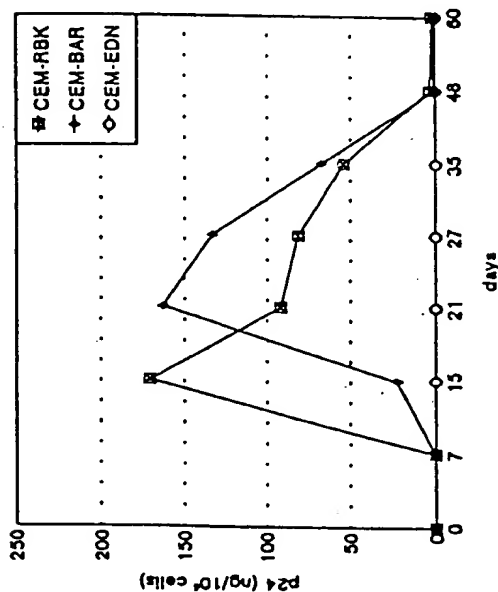
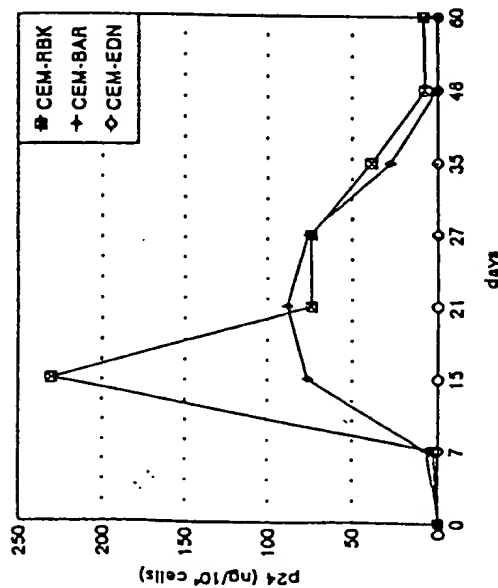
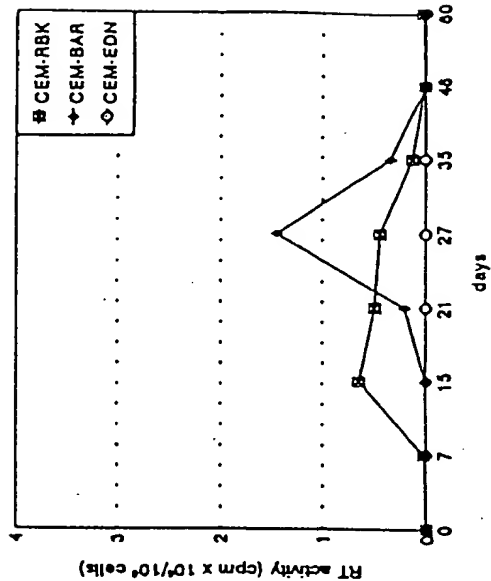
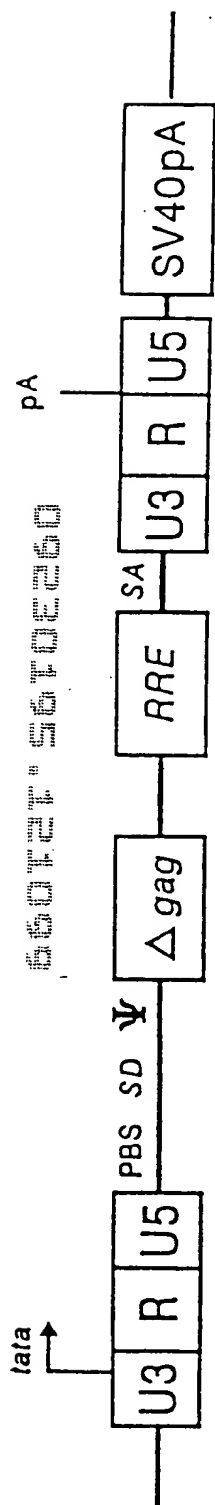
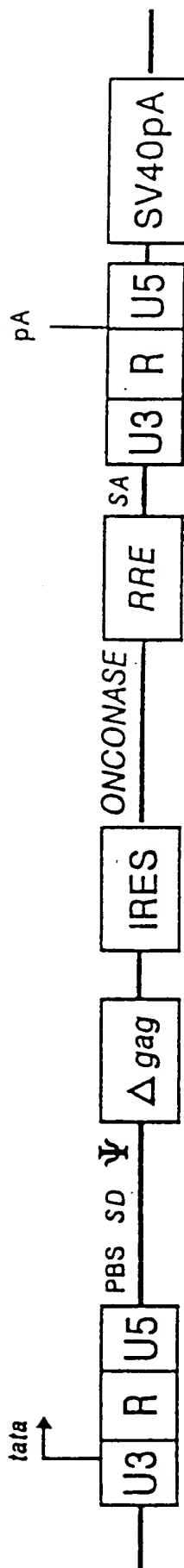


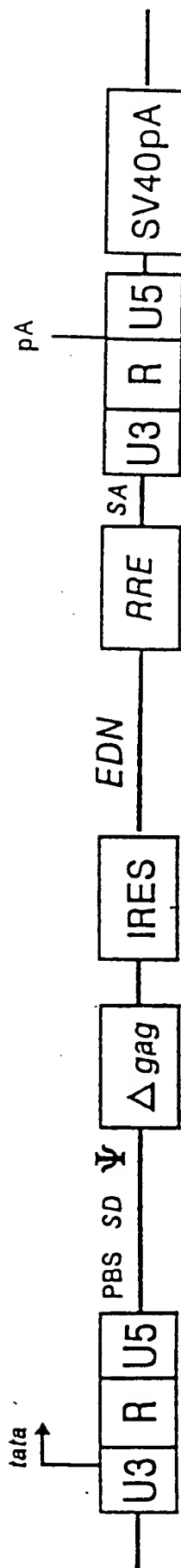
Figure 2



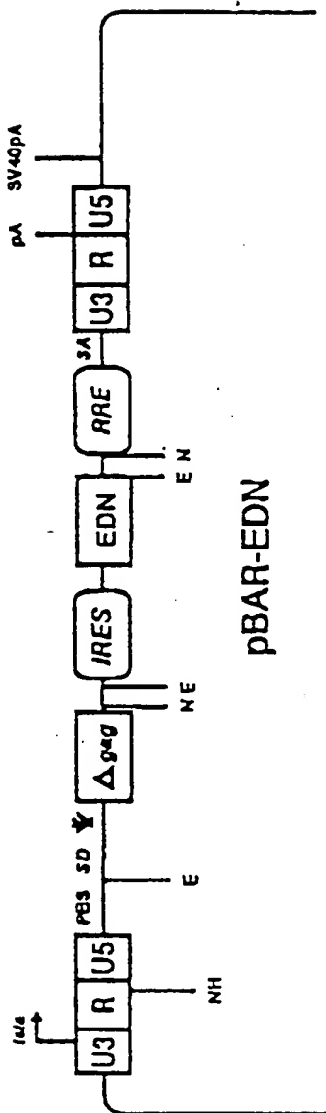
pBAR



pBAR-ONC



pBAR-EDN



RES

50
 100
 150
 200
 250
 300
 350
 400
 450
 500
 550
 595

ATTCCCCC TCTCCCTCC CCCCCCTAA CGTTACTGCC CGAGCCCT
 TGGANTAGG CCGGTGCGG TTGCTATAT GTTATTTTC ACCATATTC
 CGTCTTTTG CATTGCGG GCGCGAAG CTGCCCCGT CTCTTGAGG
 AGCATTCCTA GGGGCTTC CCTCTGCC AAGGATGC AAGTCTGT
 GAATGCTG AAGCAAGCAG TTCTCTCGA YCTTCTTGA AGCAACAA
 CGTCTGAGC GACCTTTGC AGCGAGCGA ACGCCCGCC TCGCGACAG
 TGGCTCTGG YCAAAAGCC AGGTGATTA GATACAGTG CAAGCCGCC
 ACAGCCCG TCGCAGTGG TGAGTGGAT AGTTGTGGA AGAGTCAAT
 CGCTCTCTC AAGCGTATC ACAGAGGCC TGAAGCATCC CCAGAACGA
 CCGCATTTGA TCGCATCTGA TTTCGCCCT CCGTCCCAT CTCTACNTG
 TGTATTAGTC AGGTAAAA AGCTCAGCC CCGCCGAGC ACGCGAGCA
 CGTTTTCCT TTCAAAACA CGATGATAG CTTCGCAC

Intervening sequence

CTAGAAATAATTTTGTGTTAACTTTAAGAGGAGATATACATAIG

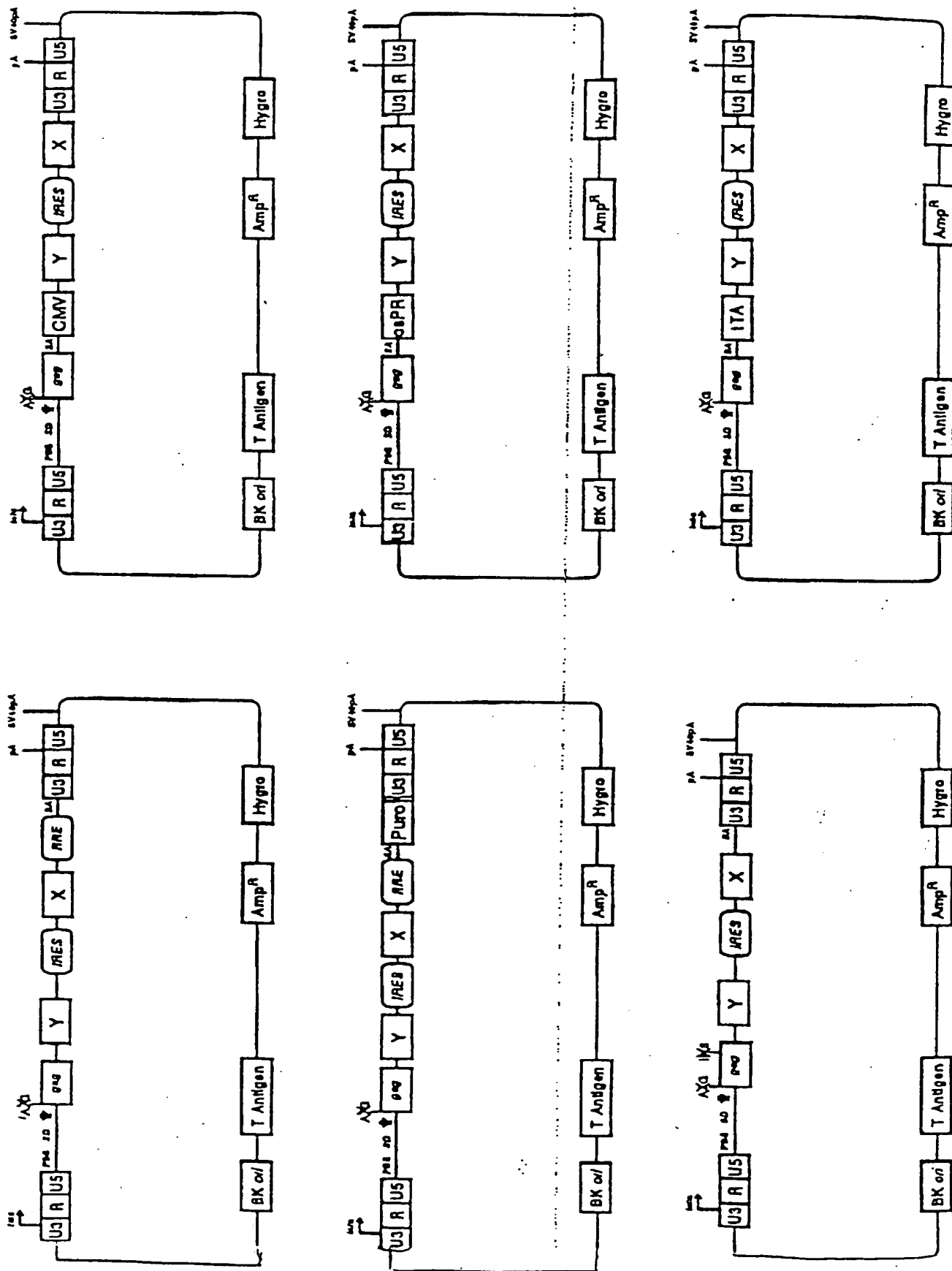
EDN

AAA CCG CCG CAG TTC ACT TGG GCT CAG TGG TTC GAA ACT CAG CAT ATC AAC ATG ACT TCT
 CAG CAG TGC ACT AAC GCT ATG CAG GTT ATC AAC AAC TAC CAG CAG GTT TCC AAA AAC CAG
 AAC ACT TTC CTG CTG ACT ACT TTC GCT AAC GTT GTT GAT CAG GTT TCC CAG GTT CCG CTG
 ACT TGC CCG TCT AAC AAA ACT GGT AAA AAC TGC CAT CAT TCT TCT CAG GTT CAG CTG
 ATC CAT TGC AAC CTG ACT ACT CCG TCT CCG CAG AAC ATC TCT AAC TGC CAG GTT TAC GCT CAG
 ACT CCG GCT AAC ATG TTC TAC ATC GTT GCT TGC GAC AAC CAG CAG CAG CAG CAG CAG CAG
 CCG CAG TAC CCG GTT GTT CAG GTT CAT CAT CTG GAC CAG CAG CAG CAG CAG CAG CAG CAG

60
 120
 180
 240
 300
 360
 402

Figure 4

Figure 5



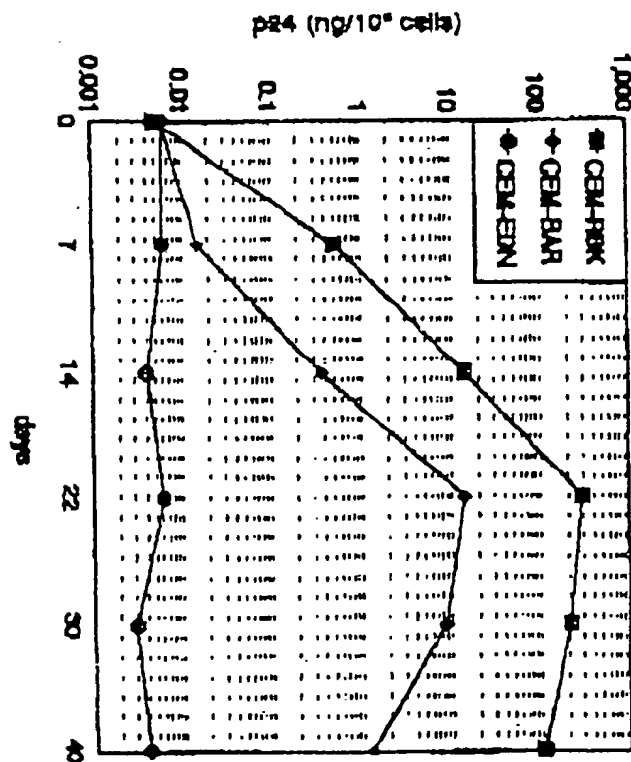
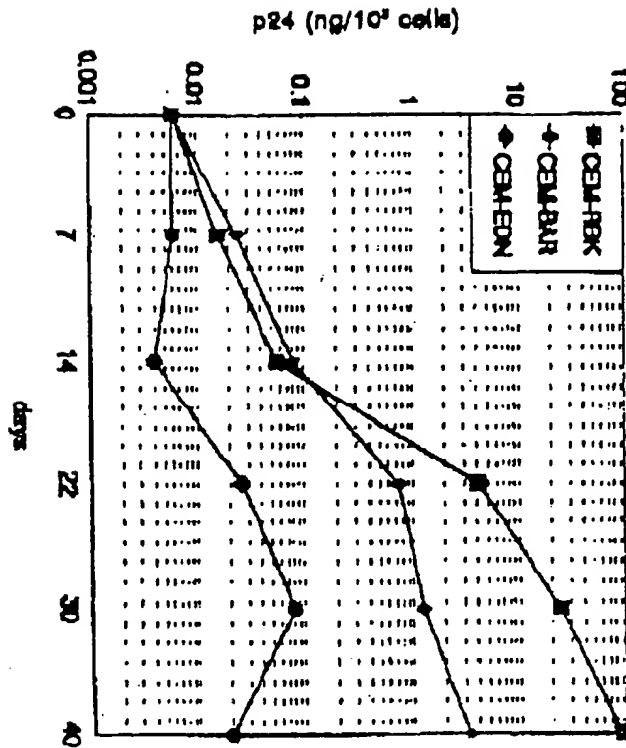


Figure 6

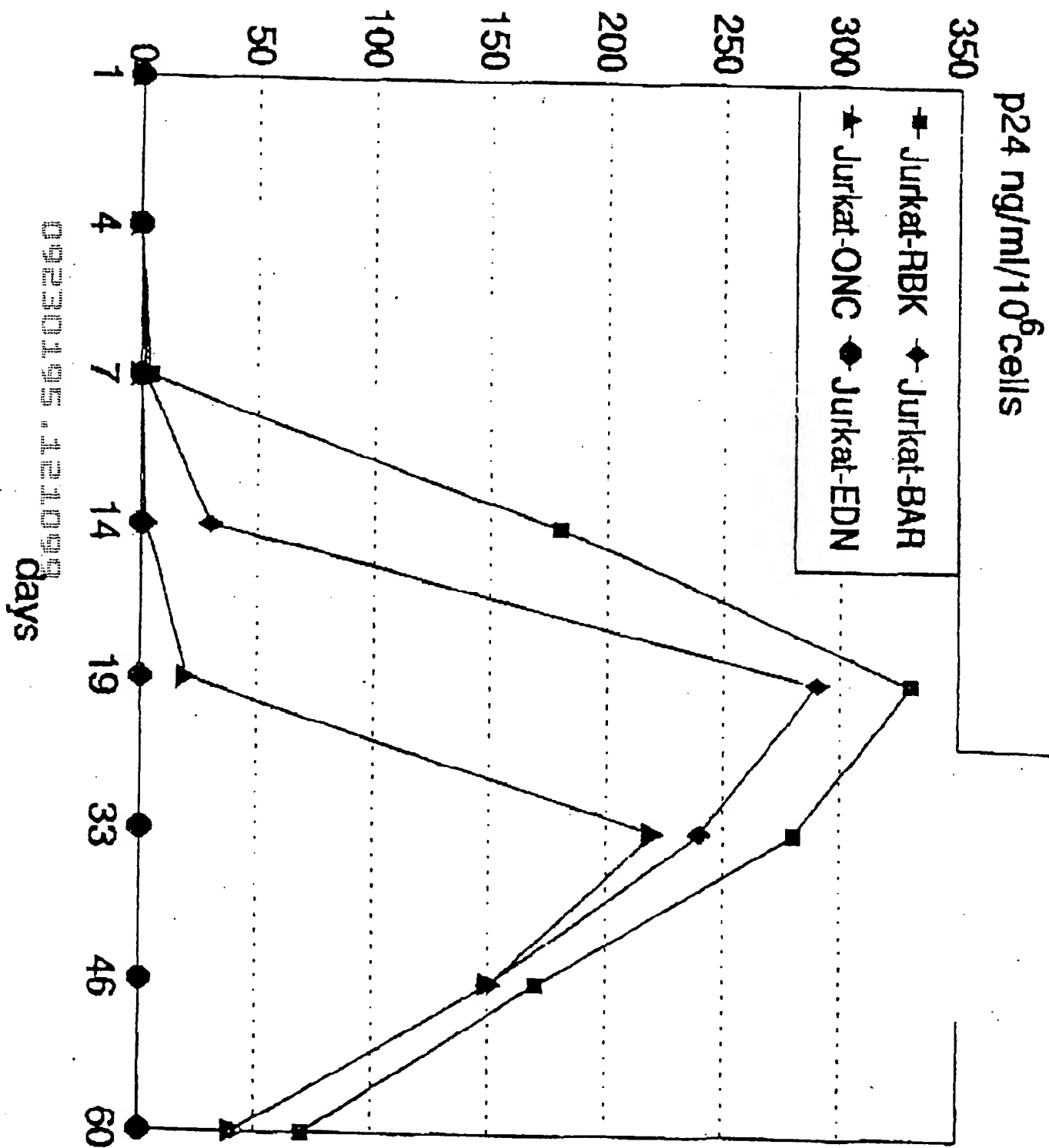


Figure 7